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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,779	06/10/2002	Wolfgang Werr	A34537-PCT-USA	7972
21003	7590	05/25/2004	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			COLLINS, CYNTHIA E	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/890,779	WERR, WOLFGANG	
	Examiner	Art Unit	
	Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-2, 4-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant STM transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group II, claim(s) 1-2, 4-5, 9 and 12, to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant AP3 transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group III, claim(s) 1-2, 4-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant ZmHOX transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group IV, claim(s) 1-2, 4-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Ms-41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group V, claim(s) 1-2, 4-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at

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least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Zm41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group VI, claim(s) 1-2, 6, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence domain of the *Drosophila* engrailed gene in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that activates transcription by interacting with a DNA-binding protein, and to a method for obtaining a transgenic plant by using said DNA construct.

Group VII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant STM transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group VIII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant AP3 transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group IX, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant ZmHOX transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group X, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Ms-41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

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Group XI, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Zm41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XII, claim(s) 1, 3, 6, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Kruppel-associated box-A domain of zinc finger proteins in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that activates transcription by interacting with a DNA-binding protein, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XIII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant STM transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XIV, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant AP3 transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XV, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant ZmHOX transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XVI, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Ms-41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XVII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion

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with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Zm41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XVIII, claim(s) 1, 3, 6, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the RE-1-silencing transcription factor in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that activates transcription by interacting with a DNA-binding protein, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XIX, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant STM transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XX, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant AP3 transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XXI, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant ZmHOX transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XXII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Ms-41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XXIII, claim(s) 1, 3-5, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in

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transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself, wherein said plant-specific sequence codes for at least a DNA-binding domain of a plant Zm41-A transcription factor, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XXIV, claim(s) 1, 3, 6, 9 and 12, drawn to a chimeric DNA construct comprising at least one repressor sequence encoding the Broad-complex Tramtrac and Bric domain in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that activates transcription by interacting with a DNA-binding protein, and to a method for obtaining a transgenic plant by using said DNA construct.

Groups XXV-XXIX, claim(s) 1-2, 4-5, 7-9 and 12, drawn to a chimeric DNA construct of Groups I-V, said construct further comprising a sequence that encodes the hormone-binding domain of a glucocorticoid steroid hormone receptor in frame with the at least one repressor sequence, and to a method for obtaining a transgenic plant by using said DNA construct.

Groups XXX-XLIV, claim(s) 1, 3-5, 7-9 and 12, drawn to a chimeric DNA construct of Groups VII-XI, XIII-XVII and XIX-XXIII, said construct further comprising a sequence that encodes the hormone-binding domain of a glucocorticoid steroid hormone receptor in frame with the at least one repressor sequence, and to a method for obtaining a transgenic plant by using said DNA construct.

Group XLV, claim(s) 1, 2, 6-9 and 12, drawn to a chimeric DNA construct of Group VI, said construct further comprising a sequence that encodes the hormone-binding domain of a glucocorticoid steroid hormone receptor in frame with the at least one repressor sequence, and to a method for obtaining a transgenic plant by using said DNA construct.

Groups XLVI-XLVIII, claim(s) 1, 3, 6-9 and 12, drawn to a chimeric DNA construct of Groups XII, XVIII and XXIV, said construct further comprising a sequence that encodes the hormone-binding domain of a glucocorticoid steroid hormone receptor in frame with the at least one repressor sequence, and to a method for obtaining a transgenic plant by using said DNA construct.

Groups XLIX-XCVI, claim(s) 10, drawn to a host cell transformed with a DNA construct of Groups I-XLVIII respectively.

Groups XCVII-CXLIV, claim(s) 11 and 15, drawn to a transgenic plant transformed with a DNA construct of Groups I-XLVIII respectively, and a first method for identifying new genes in plants requiring the use of said transgenic plant.

Groups CXLV-CXCII, claim(s) 13, drawn to use of a DNA construct of Groups I-XLVIII respectively for inhibiting the expression of a target gene in a plant genome.

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Groups CXCIII-CCXXXII, claim(s) 14, drawn to a method for determining the function of a transcription factor in plants, said method requiring the use of a DNA construct of Groups I-V, VII-XI, XIII-XVII, XIX-XXIII, XXV-XLIV respectively.

Groups CCXXXIII-CCLVI, claim(s) 16, drawn to a second method for identifying new genes in plants requiring the use of transgenic plants transformed with a DNA construct of Groups XXV-XLVIII respectively.

The inventions listed as Groups I-CCLVI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking the inventions of Groups I-CCLVI is a chimeric DNA construct comprising at least one repressor sequence in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself or by interacting with a DNA protein. However, a chimeric DNA construct comprising at least one repressor sequence in transcriptional fusion with at least one plant-specific sequence that codes for a protein or fragment thereof that binds to DNA or that that activates transcription by binding to DNA itself or by interacting with a DNA protein is obvious or anticipated over WO 96/01313. (BUJARD et al., 18 January 1996, Applicant's Search Report), and therefore does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art.

The special technical feature of each of Groups I-XLVIII is the particular DNA construct of each group and its use for obtaining a transgenic plant. The special technical feature of each of Groups XLIX-XCVI is the particular host cell of each group. The special technical feature of each of Groups XCVII-CXLIV is the particular transgenic plant of each group, and its use in a

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first method for identifying new genes in plants. The special technical feature of each of Groups CXLV-CXCII is the use of each particular DNA construct for inhibiting the expression of a target gene in a plant genome. The special technical feature of each of Groups CXCI-CCXXXII is the use of each particular DNA construct for determining the function of a transcription factor in plants. The special technical feature of each of Groups CCXXXIII-CCLVI is the use of each particular transgenic plant in a second method for identifying new genes in plants.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Remarks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cynthia Collins

Cynthia Collins 5/19/04